

WARD CHEMICAL INC.  
MATERIAL SAFETY DATA SHEET  
Trade Name: Grade MG30 CALCIUM - MAGNESIUM CHLORIDE Brine

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General Information  
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Company's Name: WARD CHEMICAL INC.  
Company's Street: 6015 - 103A STREET  
Company's City: EDMONTON  
Company's Province: Alberta  
Company's Country: Canada  
Company's Postal Code: T6H 2J7  
Company's Emerg Ph #: 403-940-1133  
Company's Info Ph #: 403-431-0288  
Date MSDS Prepared: 01MAR08  
Safety Data Review Date: 04 January, 2015

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Ingredients/Identity Information  
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Ingredient: CALCIUM CHLORIDE  
Percent: 10-15%  
NIOSH (RTECS) Number: EV9800000  
CAS Number: 10043-52-4  
OSHA PEL: NOT APPLICABLE  
ACGIH TLV: NOT APPLICABLE  
Other Recommended Limit: 10 MG/M3 (MFR)

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Ingredient: Magnesium Hydroxide  
Percent: 10-15%  
NIOSH (RTECS) Number: TS8050000  
CAS Number: 7447-40-7  
OSHA PEL: NOT APPLICABLE  
ACGIH TLV: NOT APPLICABLE

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Ingredients: Magnesium, Sodium & Potassium Chloride  
Percent: 3-5%  
NIOSH (RTECS) Number: VZ4725000  
CAS Number: 7647-14-5  
OSHA PEL: NOT APPLICABLE  
ACGIH TLV: NOT APPLICABLE

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Ingredient: WATER  
Percent: 66-74%  
NIOSH (RTECS) Number: ZC0110000  
CAS Number: 7732-18-5  
OSHA PEL: NOT APPLICABLE  
ACGIH TLV: NOT APPLICABLE

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Physical/Chemical Characteristics  
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Appearance And Odor: MILKY STRAW LIQUID SOLUTION, NO ODOR  
Boiling Point: 230F, 160C  
Vapor Pressure (MM Hg/70 F): SAME/H2\*O

Vapor Density (Air=1): 7-15@25C  
Specific Gravity: 1.25 - 1.30 Kg/L @(20 C)  
Solubility In Water: PARTIALLY MISCIBLE, 5-10% INSOLS

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Fire and Explosion Hazard Data  
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Flash Point: NOT APPLICABLE  
Lower Explosive Limit: N/A  
Upper Explosive Limit: N/A  
Extinguishing Media: NON-COMBUSTIBLE  
Special Fire Fighting Proc: WEAR NIOSH/MSHA APPROVED POSITIVE PRESSURE SCBA.  
Unusual Fire And Expl Hazrds: NONE SPECIFIED BY MANUFACTURER.

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Reactivity Data  
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Stability: YES  
Cond To Avoid (Stability): NONE SPECIFIED BY MANUFACTURER.  
Materials To Avoid: METALS WILL SLOWLY CORR IN AQU SOLN. ALUMINUM(AND ITS ALLOYS) AND YELLOW BRASS WILL BE ATTACKED BY CALCIUM CHLORIDE.  
Hazardous Decomp Products: NOT APPLICABLE  
Hazardous Poly Occur: NO  
Conditions To Avoid (Poly): NONE SPECIFIED BY MANUFACTURER.

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Health Hazard Data  
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LD50-LC50 Mixture: ORAL(RAT)900-2100MG/KG 100% CACL  
Route Of Entry - Inhalation: YES  
Route Of Entry - Skin: NO  
Route Of Entry - Ingestion: NO  
Health Haz Acute And Chronic: EYE:MOD/SEVERE EYE IRRIT W/CORNEAL INJURY MAY BE SLOW TO HEAL AT HIGH TEMPS, MATERIAL HAS MORE INTENSE EFTS AND THERMAL BURNS POSSIBLE. SKIN:RPTD EXPOSURE MAY CAUSE SKIN IRRIT, EVEN BURNS.MORE SEVERE RESPONSE IF CONFINED TO SKIN OR SKIN IS SCRATCHED/CUT. INGEST: MAY CAUSE GI IRRIT OR ULCERATION. (SEE EFTS OF OVEREXP)  
Carcinogenicity - NTP: NO  
Carcinogenicity - IARC: NO  
Carcinogenicity - OSHA: NO  
Explanation Carcinogenicity: NOT RELEVANT  
Signs/Symptoms Of Overexp: HEALTH HAZARDS: INHAL: MISTS MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.  
Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.  
Emergency/First Aid Proc: EYES:IRRIGATE W/FLOWING WATER IMMED. AND CONT FOR 15 MIN. CONSULT MD. SKIN:WASH OFF IN FLOWING WATER OR SHOWER. INGEST:INDUCE VOMIT IMMED, BY GIVING 2 GLASSES OF WATER AND STICKING FINGER DOWN THROAT. CALL MD.INHAL:REMOVE TO FRESH AIR.CONSULT MD. NOTE TO MD: IF BURN IS PRESENT, TREAT AS ANY THERMAL BURN. AFTER DECONTAM. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDMENT (SUPP DATA)

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Precautions for Safe Handling and Use  
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Steps If Matl Released/Spill: FLUSH AREA W/PLENTY OF WATER. WALKING SURFACES MAY REMAIN WET LONGER DUE TO MOISTURE BEING HELD BY SPILLED MATERIAL.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Method: WASH AWAY WITH LARGE EXCESS OF WATER. KEEP OUT OF DRINKING WATER SOURCES. COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS

Precautions-Handling/Storing: MAY SOMETIMES BE SHIPPED HOT, WHICH MAY CAUSE THERMAL BURNS & INTENSE CHEM IRRIT OR BURN. AVOID EYE & PROLONGED SKIN CONTACT.

Other Precautions: ALWAYS USE COOL WATER (TEMP <80F) WHEN DILUTING CALCIUM CHLORIDE SOLUTION. HEAT DEVELOPED BY SOLUTIONS IS VERY HIGH DURING MIXING. LEATHER CLOTHING & SHOES WILL BE DAMAGED BY CALCIUM CHLORIDE.

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Control Measures  
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Respiratory Protection: CONSULT LOCAL/SAFETY HEALTH AUTHORITIES IF ADDITIONAL GUIDANCE IS NECESSARY. THERE IS NO OSHA PEL OR ACGIH TLV FOR CALCIUM CHLORIDE.

Ventilation: GENERAL AND/OR LOCAL EXHAUST TO CONTROL AIRBORNE LEVELS BELOW EXPOSURE GUIDLINES.

Protective Gloves: IMPERVIOUS GLOVES AS REQUIRED (FP N).

Eye Protection: CHEM GOGGLES/EYE WASH FOUNT IN IMMEDIATE AREA

Other Protective Equipment: USE PROTECTIVE CLOTHING IMPERVIOUS TO THIS MATERIAL, GLOVES, BOOTS, APRON OR FULL-BODY SUIT WILL DEPEND ON OPERATION.

Work Hygienic Practices: IF SKIN COMES IN CONTACT WITH CONTAMINATED CLOTHING REMOVE CLOTHING IMMEDIATELY, WASH SKIN AREA WITH SOAP & WATER, LAUNDRY CLOTHING.

Suppl. Safety & Health Data: FIRST AID PROC: NOTE TO PHYSICIAN: SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

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Transportation Data  
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DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION

IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION

IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION

AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION

Additional Trans Data: NOT REGULATED FOR TRANSPORTATION

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Disposal Data  
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Disposal must comply with local environmental regulations.

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Label Data  
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Label Required: NO

Technical Review Date: 15JUL00

Common Name: CALCIUM CHLORIDE..BRINE SOLUTION & MILK OF MAGNESIA

Acute Health Hazard-Slight: X

Contact Hazard-Severe: X

Fire Hazard-None: X

Reactivity Hazard-None: X

Special Hazard Precautions: ACUTE: AVOID EYE AND PROLONGED SKIN CONTACT.

CAUSES SKIN BURNS. DO NOT GET ON SKIN AND CLOTHING. AVOID BREATHING MIST.

KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. MAY CAUSE RESPIRATORY TRACT IRRITATION. DO NOT INGEST. MAY CAUSE IRRITATION/ULCERATION. CHRONIC: HAZARDS NOT DETERMINED.

Protect Eye: Y

Protect Skin: Y

